

Patent Attorneys
DR O LOESENBECK (1931-1980)
A STRACKE, ENGINEER
K O LOESENBECK, ENGINEER

Representative at the European Patent Office

Fuchs + Böhme GmbH
Chemische Fabrik
Im Meisenfeld 9
32602 Vlotho (Exter)

Jöllenbecker Straße 164
D-33613 Bielefeld

Description

Portion packaging

The invention relates to a portion packaging for a dishwashing agent more specifically for use in dishwashing machines.

For the purpose of metering the dishwashing agent it is known to measure the required quantity by means of a measuring cup, a spoon or the like. However, this method is considered to be cumbersome since it is always necessary to have the measuring device to hand. Moreover, it is unavoidable that when removing the dishwashing agent from the packet, the said agent becomes scattered. In order to remove these disadvantages, it is known to compress the quantity required for one wash cycle. The compressed blocks are called 'tabs'. However, one disadvantage of this method is that certain raw materials, which could be used advantageously, cannot be compressed and as a consequence must be omitted. Consequently, the crockery which has been washed is covered with a so-called bloom. One such material which would prevent this condition would be, for example, sodium percarbonate.

A further disadvantage resides in the fact that the compressed blocks must come into contact with the user's hand and as a result can, for example, trigger allergies.

The object of the invention is to provide individual portion packaging which offers the advantages of compressed blocks and at the same time does not create any waste during usage.

The said object is achieved by virtue of the fact that the portion for one wash cycle is filled into a flexible bag which consists of a foodstuff-resistant and water-soluble material.

The use of a flexible bag renders it possible to manufacture the portion packaging in a known manner by means of a so-called forming, filling and sealing machine. The required portion can then be introduced into the dishwashing machine prior to the wash cycle without using a measuring device. The dishwashing agent does not come into contact with the skin, so that there is no risk of an allergy. In a particularly advantageous manner the dishwashing agent can now contain all the necessary substances so that a bloom, which would hitherto normally have had to have been removed by cleaning or drying, does not occur on the crockery which has been washed. Since the bag consists of a water-soluble material, it dissolves during the wash cycle and therefore does not produce any waste.

This material can be, for example, polyvinyl alcohol which is a biologically degradable synthetic material, such as polymers which break down into a solution in a short period of time by means of adapted micro-organisms. Another possible material is foodstuff-resistant gelatine which is normally obtained from bones. It is also of particular advantage that the flexible bag is transparent, so that the contents are visible. Gelatine consists primarily of glycine, polyhydroxyproline, glutamine acid, alanine, arginine, asparagine acid and various amino acids. Since gelatine is obtained amongst other things by decomposing bones, skin and rind of slaughtered animals, an environmentally friendly manufacturing process is ensured.

The conventional, generally known types of bags can be used for the flexible bag. However, it is particularly advantageous if it is a flat bag. Not only are flat bags easy to manufacture, but they also require the minimum amount of material. The flat bag is expediently designed as a sealed-edge bag which is sealed on at least three sides by a hot seal seam and it is

manufactured from a blank which is folded in the middle so that the two bag walls lie with their faces one above the other. The two lateral edges are then first joined together and after the bag has been filled, it is completely sealed by means of the third hot seal seam.

The invention is further explained with reference to the attached drawing.

Figure 1 illustrates a perspective view of a transparent bag which is filled with a dishwashing agent.

The portion packaging illustrated in Figure 1 is formed as a transparent flat bag 10 which is sealed on both longitudinal sides by means of two hot seal seams 11,12 and on a transverse side by means of a hot seal seam 13. The hot seal seam 13 is sealed after the bag has been filled with a dishwashing agent, so that the filling orifice of the bag is sealed tightly. Since the bag is manufactured from a blank which is twice the length of the flat bag 10, the fourth weld seam, which would lie opposite the hot seal seam 13, is redundant. In contrast to the illustrated design, it is also feasible to manufacture the flat bag 10 from two strips or two blanks, so that it would then be sealed all around by hot seal seams.

The flat bag 10 is manufactured from gelatine, so that it can be introduced into a dishwashing machine prior to the wash cycle since it dissolves without leaving a residue as the material used is water-soluble. Since the dishwashing agent is not compressed, all the necessary substances can be included in the dishwashing agent, so that an optimum rinsing effect is achieved.

Other types of bags can also be used in place of a flat bag. It is essential that it can be used during the washing process in a manner which is generally recognised as being safe (GRAS).

Patent Attorneys
DR O LOESENBECK (1931-1980)
A STRACKE, ENGINEER
K O LOESENBECK, ENGINEER

Representative at the European Patent Office

Fuchs + Böhme GmbH
Chemische Fabrik
Im Meisenfeld 9
32602 Vlotho (Exter)

Jöllenbecker Straße 164
D-33613 Bielefeld

Claims

1. Portion packaging for a dishwashing agent, more specifically for use in dishwashing machines, characterised in that the portion for one wash cycle is filled into a flexible bag (10) which consists of a foodstuff-resistant and water-soluble material.
2. Portion packaging according to claim 1, characterised in that the material is polyvinyl alcohol.
3. Portion packaging according to claim 1 or 2, characterised in that the material is foodstuff-resistant gelatine.
4. Portion packaging according to any one or several of the preceding claims, characterised in that the bag (10) is a flat bag.
5. Portion packaging according to claim 4, characterised in that the flat bag is formed as a sealed-edge bag which is sealed at least on three sides by means of a respective hot seal seam (11,12,13).